Antenna Systems

- **Overall Objective**
  - Increase the performance/cost ratio of DSN antennas and associated elements, and demonstrate efficient use of DSN resources
- **Goals and Products**
  - Develop 32 GHz capabilities for DSN antennas
  - Develop new calibration techniques and microwave components to lower cost and improve performance: raster scan, ultra low loss ceramic waveguides, active surface amplifiers
  - Compensate for efficiency roll-of the 34m and 70m antennas by implementing a deformable flat plate
  - Develop enabling capabilities for the Cassini Radio Science Experiment: beam aberration correction, antenna stability characterization, 800W Ka-band transmitter

The 34-m Research and Development Beam Waveguide Antenna (DSS 13) at Goldstone, CA